



NSC Briefing

8 March, 1973

TOP SECRET SENSITIVE

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DCI BRIEFING FOR NSC MEETING

- I. Mr. President, I should like briefly to do two things. First, I will discuss highlights of Soviet developments in their strategic forces since the ABM Treaty and the Interim Agreement were signed last May. Then I will develop the relationship of newer technologies to the future strategic posture of the Soviet Union.
 - A. I can say in general that the effect of the SALT accords has been to place a cap on the number of Soviet ICBM launchers, and a prospective cap on the number of submarine-launched ballistic missiles.

II. The way is left open, however, for the Soviets to continue a technological competition with the US in the field of strategic weaponry. Our evidence indicates that they are pursuing this competition with a hard-driving program of research and development on a broad range of strategic weapons.

(CHART - RECENT SOVIET WEAPON DEVELOPMENT PROGRAMS)

III. The weapons currently undergoing tests include three new ICBMs.

- A. Two are liquid propellant ICBMs in the SS-11 and SS-9 class. The third is a solid propellant ICBM, possibly mobile.
- B. In addition, the Soviets are working on new guidance techniques for their new ICBMs, and they have developed new silo designs and launch systems techniques.
- C. MIRVs have not yet been tested, but are considered likely.
- D. A new ABM system is under development, with a transportable radar.

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E. And a new submarine-launched ballistic missile is being developed. It has a range of 4,300 nautical miles and uses stellar-corrected guidance.

IV. The three new ICBMs are shown on this board. For comparison we have included the principal operational Soviet ICBMs--the SS-13, SS-11, and SS-9--as well as the US Minuteman III.

A. One of these new systems--the SS-X-18--is the large ICBM that will be deployed in 25 new silos at the SS-9 complexes. It will probably carry a heavier payload than the SS-9. We believe this will be a MIRV payload, but to date the Soviets have tested it only with a single RV. It could be ready for deployment in 1975.

B. The other two new missiles are smaller. The SS-X-17 is a liquid-propellant ICBM in the SS-11 class. The SS-X-16 is a solid-propellant system like the SS-13, and may be intended for mobile deployment. These too have been tested only with a single RV so far, but eventually could be equipped with MIRVs. These missiles could also be ready in 1975.

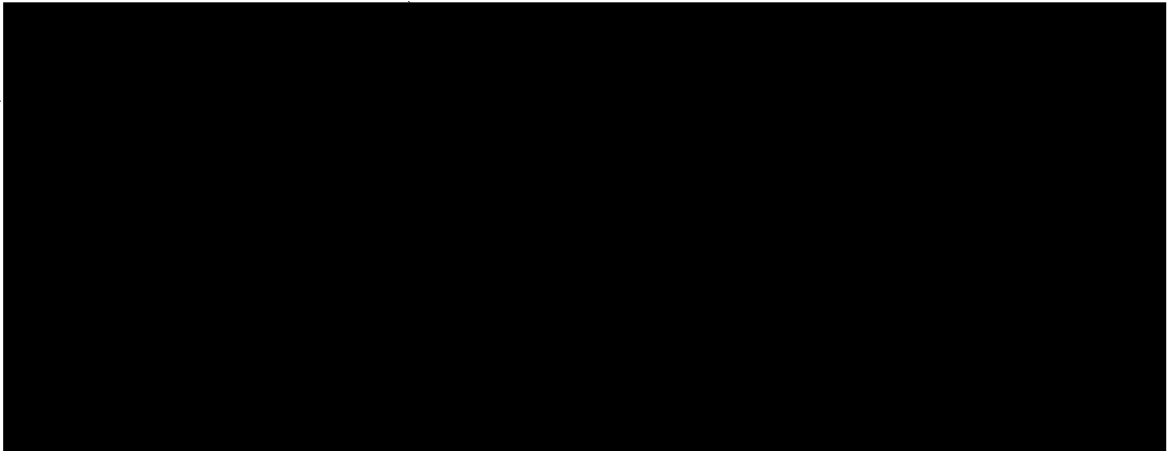
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C. The most significant feature of all of these missiles is the incorporation of a new guidance technique using on-board computers. This represents a new departure in Soviet technology from earlier guidance techniques. The new systems would permit the Soviets to achieve better accuracies and more flexibility in targeting, and would lend themselves more readily to use of a bus-type MIRV payload.

D. Two new types of silos are under construction in the field--one larger than the other.

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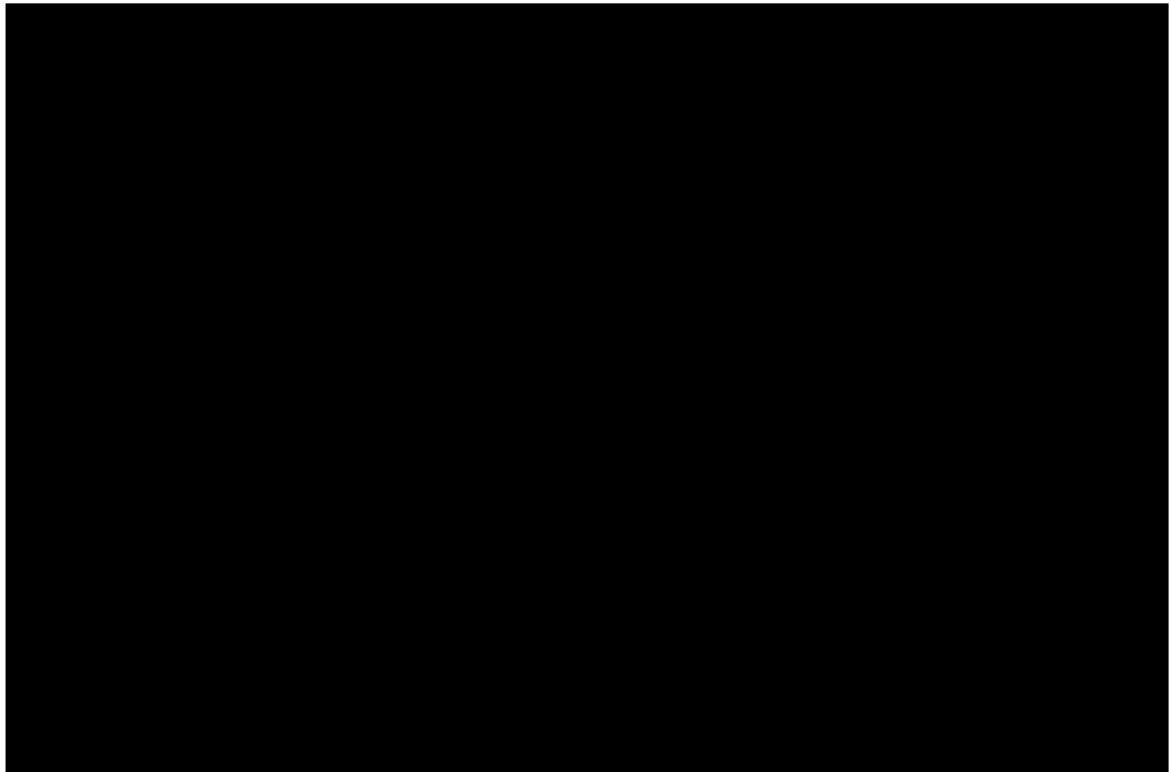
- B. The significance of this system is two-fold.
First, as demonstrated, it can be deployed rapidly. Second, the radar can engage a number of targets simultaneously.
- C. Our initial analysis indicates that this system would not be highly effective against current US strategic missiles, but it could have considerable capability against less advanced Chinese missiles.

(CHART -- PACE OF R&D ON SOVIET MISSILES)

VI. This chart summarizes selected major events in Soviet R&D on new strategic missiles since early 1972. You will note the amount of activity subsequent to the signing of the SALT accords in May last year.

A. The SS-X-16--the new small solid-propellant ICBM--has moved along steadily but not without difficulties, as evidenced by the two consecutive failures.

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VII. I would now like to relate the ongoing developments in Soviet strategic weapons programs to the question of launcher numbers, throwweight and MIRVs.

(SOVIET AND US ICBMS)

VIII. Let me begin with an examination of the number of ICBM launchers on each side.

- A. You will recall that the Agreement limits the Soviet ICBM force to the 1,618 launchers in operation and under construction as of the first of July 1972.
- B. The decline in Soviet launchers beginning in 1975 reflects the phasing out of those older SS-7s and SS-8s not in silos.
- C. Toward the end of the decade, the Soviets would probably replace both the SS-9s and the SS-11s with the new ICBMs under development.
- D. The drop in the US total reflects the 54 Titans being phased out of the force.

(SOVIET & US SUBMARINES AND LAUNCHERS)

IX. Turning now to ballistic missile submarines, I would like to recapitulate briefly: The Agreement and the Protocol allow the Soviets to have 740 ballistic missile launchers on nuclear-powered

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submarines. This total could become 950 if 210 of their older ICBMs or ballistic missile launchers on older submarines were replaced, one for one. In making these substitutions, however, the Soviets may not increase their modern ballistic missile submarine force beyond 62 boats.

- A. The peak Soviet deployment level of 71 submarines in 1977 includes 9 H class submarines that are not counted against the limit of 62 modern ballistic missile submarines.
 - 1. In the projection of Soviet forces depicted here, we have assumed that the aging H class submarines are decommissioned in 1977.
- B. The Soviets cannot get up to the missile launcher limit of 950 unless they introduce a new submarine having 20 or more tubes.
- C. The increase in US submarines beginning in 1977 marks the introduction of the Trident submarine.
- D. All of the US submarine launchers are scheduled to be MIRVed. We expect the Soviets to follow this same course although we have no evidence so far that they will.

(COMPARISON OF THROWWEIGHT)

- X. As you know, Mr. President, throwweight indicates the potential capacity of a missile force to deliver nuclear warheads. The Interim Agreement does not directly control throwweight except for the sublimit of 313 on modern large ballistic missiles like the SS-9.
- A. Soviet throwweight on ICBMs is already more than four times that of the US and we forecast some slight increase by 1977.
1. The slight decline from 1977 to 1982 reflects the phase out of soft SS-7s and SS-8s.
 2. The major ingredient in Soviet ICBM throwweight is in the SS-9 force.
- B. US throwweight on ICBMs stays relatively steady over the next 10 years.
- C. The increase in throwweight on Soviet submarine launchers reflects the growth in the submarine force. The throwweight on US submarine launchers increases as Poseidon and then Trident are deployed.

XI. Here are some ways to look at how the throwweight on each side could be used.

A. While it is not the route the Soviets are likely to follow, they could use their throwweight advantage in conjunction with US warhead technology to produce an extraordinary number of MIRVs. For example, [REDACTED]

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could be carried on the SS-9 and 6 on the SS-11 which would add to over [REDACTED]

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If we assume the Soviets have technology equal to the Poseidon [REDACTED] could be carried by each SS-9 and [REDACTED] SS-11 for a total number of [REDACTED]

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B. On the other hand, the curves show what would happen if the Soviet force, in a more likely case, were optimized for the counterforce role--with [REDACTED] on the

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new large and [REDACTED] on the new small

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missile, each with high accuracy and a yield of [REDACTED] In this case, the Soviets would ultimately have a counterforce capability against Minuteman with either the SS-9 or the SS-11 force.

- C. The US side shows the programmed force and the option to deploy 1000 Minuteman III.
- D. Of course, if SLBMs were counted in, the US and the Soviets could have about equal numbers of MIRVs in 1985. This could be the result if, for example, the Soviets chose to limit the number of MIRVs on their SLBMs to 3 each. Even with equal numbers of MIRVs, the nature of the two forces would be greatly different because of the much greater yield of the Soviet weapons. This disparity in yield could be significant regarding relative counterforce capabilities.

(FORCE CHARACTERISTICS)

XII. Conclusion

1. Under the terms of the Interim Agreement, the USSR could outclass US missile forces in the mid-1980s by exploiting its advantages in numbers of ICBM launchers, submarine launchers and throwweight.

- A. The present US advantages are based on our superior weapons technology. This capability has resulted in a large number of small, highly accurate MIRVs.

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Right now these weapons are able to compensate for the Soviet advantages in throwweight and numbers of launchers.

- B. Over time this current advantage can be redressed by the USSR. With improved technologies and exploitation of their throwweight advantage the Soviets could attain a substantial edge on the US in about 10 years.

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Recent Soviet Weapon Development Programs

- THREE NEW ICBMs UNDER TEST, INCLUDING:

- Two liquid propellant SS-11 and SS-9 class ICBMs,

- A solid propellant ICBM, possibly mobile,

- New guidance techniques, and

- New silo designs and launch system techniques.

- MIRVs NOT YET TESTED, BUT CONSIDERED LIKELY

- NEW ABM WITH TRANSPORTABLE RADAR

- 4300 NM RANGE SLBM WITH STELLAR CORRECTED GUIDANCE

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ICBM COMPARISON

USSR

US

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SS-13

SS-11

SS-9

SS-X-16

SS-X-17

SS-X-18

Minuteman III

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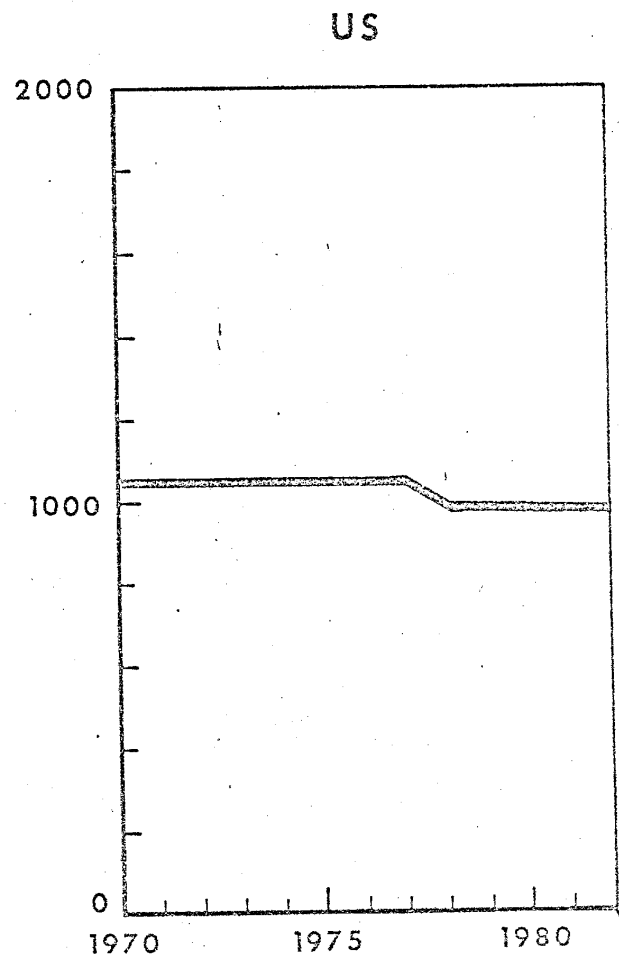
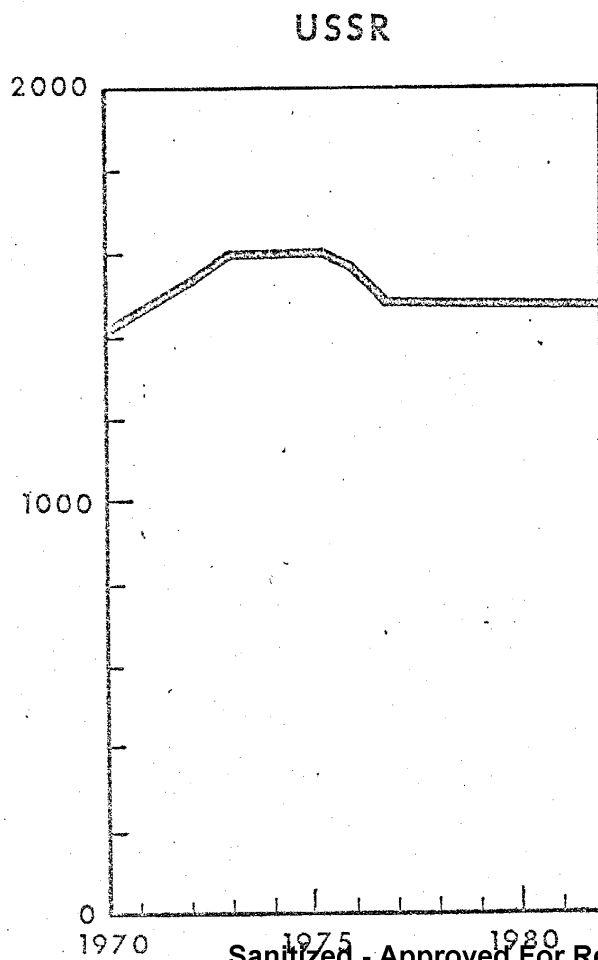
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SOVIET AND US ICBMs

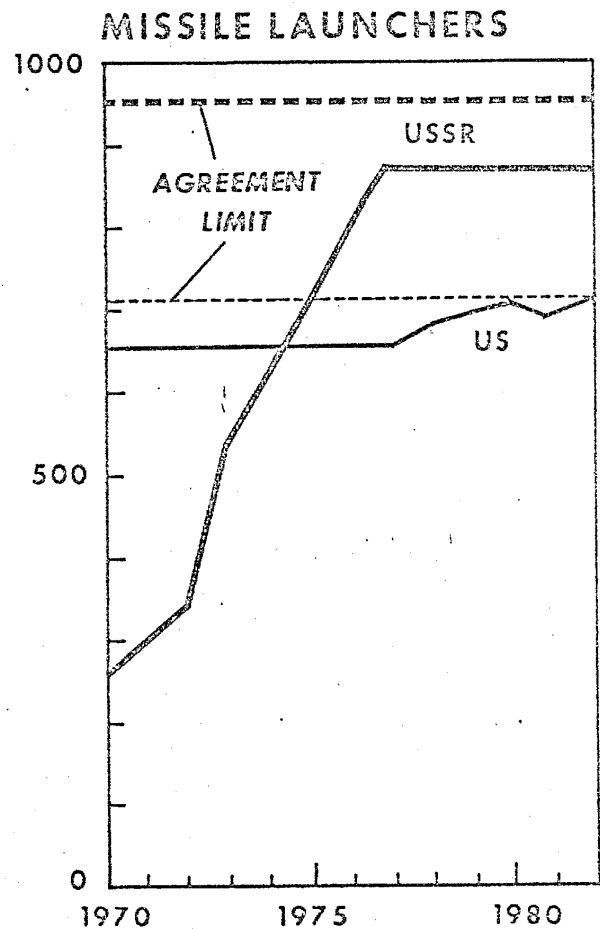
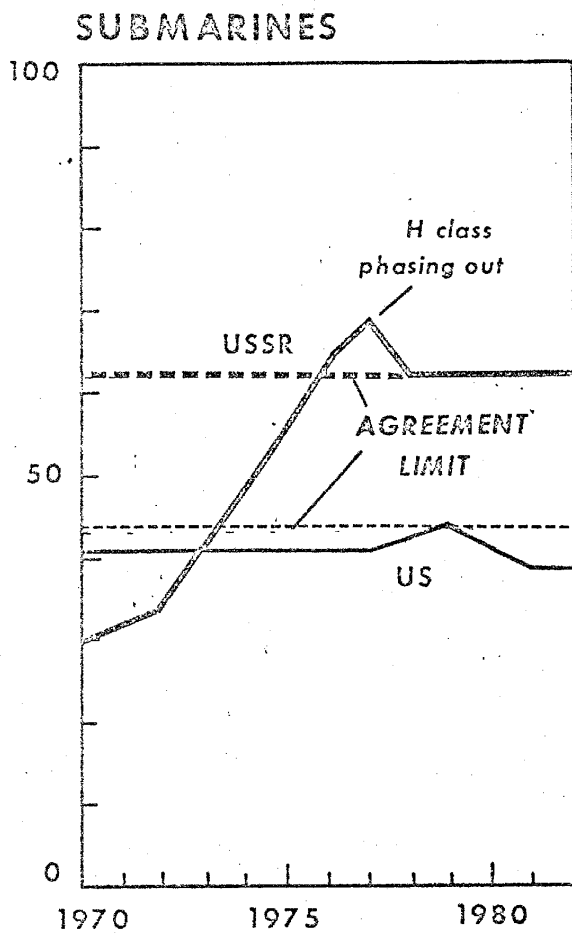


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SOVIET AND US SUBMARINES AND MISSILE LAUNCHERS



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Force Characteristics Providing Balance Under the Interim Agreements

US CHARACTERISTICS

1. MIRVs AND RV TECHNOLOGY
2. GUIDANCE TECHNOLOGY
3. NUCLEAR WEAPONS TECHNOLOGY

These technologies resulted in large numbers of small RVs compensating for Soviet greater throwweight and numbers of launchers.

U S position and overall balance based on waning advantages.

SOVIET CHARACTERISTICS

1. NUMBERS OF LAUNCHERS
2. THROW WEIGHT
3. ON-GOING MISSILE DEVELOPMENT PROGRAMS

U S objective at SALT II —

To limit Soviet throwweight & numbers edge by breaking momentum of their deployment programs.

With improved technologies and exploitation of throwweight, Soviet forces could outclass U S forces.

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OFFICIAL ROUTING SLIP					
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1	[REDACTED] Rm. 7E 13 HQ		15 Mar 73	JES	
2					
3	DAVID S. BRANDWEIN				
4	1D 1617 HQ				
5					
6					
ACTION		DIRECT REPLY		PREPARE REPLY	
APPROVAL		DISPATCH		RECOMMENDATION	
COMMENT		FILE		RETURN	
CONCURRENCE		INFORMATION		SIGNATURE	
Remarks: Please return to me after you have read <u>DAVE</u> THANK YOU VERY MUCH - AN INTERESTING PRESENTATION 25X1A [REDACTED]					
FOLD HERE TO RETURN TO SENDER					
FROM: NAME, ADDRESS AND PHONE NO.				DATE	
David S. Brandwein 1D 1617 HQ				15 Mar 73	
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